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Seven competencies essential for an effective instructional manager (individual in charge of instruction) are identified: (1) define the objectives of instruction, (2) adjust the instruction for the individual, (3) select appropriate strategy of instruction, (4) organize the learning environment, (5) interact with pupil for pupil success, (6) evaluate student growth, and (7) define the next instructional procedures appropriate for each individual. Each of these seven competencies is then broadly analyzed for component--both knowledge and application--tasks. This document and SP 002 155-SP 002 180 comprise the appendixes for the ComField Model Teacher Education Program Specifications in SP 002 154. (SG)

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APPENDIX H--SAMPLE TASK ANALYSIS: BEHAVIORAL OBJECTIVES FOR COMFIELD LABORATORY

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SAMPLE TASK ANALYSIS:
BEHAVIORAL OBJECTIVES FOR COMFIELD LABORATORY

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A review of the literature indicates that essentially seven broad competencies are essential for an effective Instructional Manager (IM).

1. Define the objectives of instruction.
2. Adjust the instruction for the individual.
3. Select appropriate strategy of instruction.
4. Organize the learning environment.
5. Interact with pupils for pupil success.
6. Evaluate student growth.
7. Define the next instructional procedure appropriate to each individual.

Each of the seven categories may be analyzed for component tasks almost indefinitely. By asking what is it the teacher must do in order to perform each competency and working backward from each task, a sequence of tasks is developed in a manner similar to that proposed by Gagne. Each of the tasks includes a knowledge component and an application component, i.e., each of the subtasks must first be learned (become known) and later be applied in a teaching context. Brief explanations of each of the broad competencies and subtasks follow:

Define Objectives: The effective IM must be able to specify the changes in learners' behaviors that give evidence that learning has occurred. In order for the IM to write significant objectives appropriate to the content, classes of learner outcomes, and characteristics of the learner, she must be able to do the following:

Ojectives having to do with technical knowledge:

Task 1. Define "behavioral objective" and list characteristics of behavioral objectives.
Task 2. Distinguish between (discriminate) objectives which are behaviorally stated and those not so stated.

Objectives having to do with application:

Task 3. Write behavioral objectives for learning activities in several content areas.

Task 4. Write objectives for several subject content areas for the cognitive domain of behavior: a) for knowledge level of behavior, and b) for higher levels of behavior.

Task 5. Write objectives for content areas for affective domain for all levels of behavior.

Task 6. Write objectives for content areas for the psychomotor domain.

Task 7. Trainees select examples of objectives which illustrate a) convergent thinking, b) divergent thinking, c) evaluative thinking.

These tasks must be successfully achieved in order to accomplish the broad competency entitled "define objectives."

But another task is also essential to this competency. The IM must be able to explain why the objectives are considered important in terms of the learners, societal needs, subject content, and classes of learner outcomes. This task is premised on prerequisite knowledge of learner characteristics (e.g., mental, social, emotional and physical development), the needs of the society (present and future - local, state, and national communities), and the structure of the subject matter field.

The subtask is:

Task 8. Trainees state how the objectives they have written for preceding tasks are appropriate to a) societal needs, b) developmental needs of the youth he will be teaching, c) classes of learning outcomes, d) structure and methods of inquiry of the discipline from which the objectives are drawn.

Adjusts for Individual: In order for the IM to adjust instruction for individual differences of the learners, it is necessary that she explicate the behaviors (knowledge, understandings, skills) essential for the pupil to successfully achieve the instructional objectives. This also requires that the IM have knowledge and understanding of categories of learner characteristics, e.g., understandings, knowledges, abilities, developmental stages, etc.

The subtasks for this competency are:

Task 9. State prerequisites behavior necessary for given objectives.

Task 10. Write descriptions of procedures for assessing the degree to which different types of learners are likely to possess the necessary prerequisites for a learning task.

Task 11. Write modified objectives for different types of learners and different classes of learner outcomes.

Selects Strategy: In selecting the strategies for instruction, the IM should be able to answer the questions: What are the most effective media to employ which enable the learner to demonstrate the behavior? What learning activities are appropriate for pupils to achieve each objective?

Selecting learner activities and media appropriate to the objectives is pertinent to the considerations of efficiency and effectiveness in learning. Selecting a media requires that the I understand characteristics of different media (films, slides, t.v., programmed instruction, etc.) and also factors in the design of each of the media which are influential upon more effective learning, e.g., stimuli of the film appropriate to the learning intended (discriminatory, chaining, problem solving, etc.).

The subtask is:

Task 12. Choose from among available media, and justify choices in terms of a) relevance of content, and b) appropriateness of media's characteristics to the desired behavior.

In addition the IM must understand that pupils have different learning styles and preferences for particular channels for information input. For example, some pupils learn best by seeing, others by hearing, some learn best by structured information, and others by unstructured experiences.

The subtask is:

Task 13. Select media appropriate to different learners' characteristics.

She must also know the sources of media available for the subjects she manages, and must be able to list kinds of media which enhance instruction.

The subtasks are;

Task 14. List sources of media appropriate to content areas.

Task 15. Construct examples of types of media useful in differing content areas.

Selecting appropriate activities requires that the IM understand principles of learning (e.g., active involvement of the learners, challenging and meaningful activities, etc.), classes of learner outcomes, characteristics of the learners, kinds of learning, and (methods) appropriate thereto.

She should know when, for example, the lecture is appropriate, when and how to employ inquiry procedures, etc.

The subtasks are;

Task 16. Determine activities of learners and justify the appropriateness of these activities in terms of a) the kinds of learning involved, b) principles of learning, c) learner characteristics, d) significance to content, e) relevance to classes of learner outcomes, f) methods.

Task 17. Determine and describe teacher activity in terms of kind of learning involved and related principles of learning.

Organizes Environment: Organizing the learning environment requires that the IM make an analysis of her objectives, the media, materials and methods to decide the most efficient (and logical) means for sequencing the instructional activities. Further, she must organize the physical environment in a manner conducive to learning. This includes such things as seating arrangements (e.g., to facilitate group interaction), the placement of equipment and materials and the like.

The subtasks are:

Task 18. Write plans which place in appropriate sequence a) anticipated pupil activity, b) teacher actions, c) media. Allot necessary time for aspects of the plans.

Task 19. In simulated classrooms, place equipment, media and pupils to facilitate different types of activity.

Interacts so Pupils Succeed: Whenever the IM responds to pupils she is interacting; however, the term is used here in a more limited and confined sense by referring to her ability to elicit and reinforce particular kinds of student responses. The effective IM sets the purpose of instruction in such a manner that pupils show interest and attention. Further, she is able to use didactic methods resulting in student responses evidencing the levels of thought processes of the cognitive and affective domains. In addition she must know when and how to reinforce correct responses of thought modes of students.

The subtasks, then, include:

In each of these types of situations, interact with pupils effectively by (a) eliciting frequent pupil responses, and (b) reinforcing appropriate responses:

Task 20. Describe to pupils a specific learning task, and elicit responses which indicate a favorable "set" toward the task.

Task 21. Elicit responses representative of the various levels of the cognitive domain and demonstrate appropriate reinforcement.

1) Elicit responses which indicate practice in acquiring knowledge.
2) Elicit responses characterizing convergent thinking; or behavior at the comprehension levels of the cognitive domain.
3) Elicit responses which characterize divergent thinking, or the analysis or synthesis levels of the cognitive domain.
4) Elicit responses indicating evaluative thinking.

Task 22. Elicit responses representative of the various levels of the affective domain, and demonstrate appropriate reinforcement for the levels thereof.

1) Elicit responses characterizing receiving behavior.
2) Elicit responses demonstrating responding behavior.
3) Elicit responses inferential of valuing.
4) Elicit responses indicative of proselytizing behavior.
5) Elicit responses evidencing a sacrifice.

Task 23. Elicit responses representative of the various levels of the psychomotor domain and appropriately reinforce these responses.

1) Elicit responses indicating mental, physical and emotional sets.
2) Elicit responses demonstrating imitative and trial behavior.
3) Elicit responses illustrating habitual skill behavior.
4) Elicit responses demonstrating efficient, habituated skills for a complex task.

Evaluates Growth: The specification of objectives provides for an accurate appraisal of student performance. The IM however, must also be able to write tests which are reliable and valid, and test items which are representative of the objectives. She must adequately sample from the domains of learning and the levels of each domain, thus assuring that the test items are proportionate to the learning emphasized throughout the course or system. She must be skillful in conferring individually with pupils to ascertain pupil achievement of, and progress toward, the instructional objectives. This requires that the IM be cognizant of the critical knowledges, skills, understandings necessary to student success. During these individual conferences, she must be skillful in providing feedback to pupils.

The subtasks are:

Task 24. Write test items which adequately sample behavior described in previously written objectives.
Task 25. Appraise student performance according to criteria based upon objectives.
Task 26. Confer with pupils individually so as to elicit pupil responses indicating that pupils make a fair appraisal of their own performance.

Defines Next Step: After evaluating learner progress and success, the IM must help the learners determine the most appropriate direction for them to proceed. If the learners have successfully achieved the objectives, the next step would be the instructional strategies for other objectives within systems. In short, the learners would proceed. If learners were not successful, the IM would then determine the appropriate steps to be taken. This might include, for example, routing a student to an enabling system for review or remedial instruction.

While this competency appears last, it might be inferred that this is a concluding task. All of the competencies are likely to be interwoven within a short period of time. Thus, this competency would occur frequently throughout a system as students progress from objective to objective.

The subtasks are:

Task 27. Diagnose appropriate learning cycles in accord with pupil demonstration of knowledges, skills, and understandings required for progression to the next objective.
Task 28. Define next objectives in terms of content, learner characteristics, and classes of learner outcome.

It is recognized that many strategies of instruction may be employed to reach a stated objective. Accordingly, the foregoing tasks are stated in rather general terms. We believe this to be essential, for planning and carrying out activities must be directed toward different classes of learner outcomes, different learners, and different content. For example, see learner activities specified by tasks four and five.

Summary of Competencies and Related Tasks

I. Define Objectives

Task 1. Define "behavioral objective" and list characteristics of behavioral objectives.
Task 2. Distinguish between (discriminate) objectives which are behaviorally stated and those not so stated.
Task 3. Write behavioral objectives for learning activities in several content areas.
Task 4. Write objectives for several subject content areas for the cognitive domain of behavior: a) for knowledge level of behavior, and b) for higher levels of behavior.
Task 5. Write objectives for content areas for affective domain for all levels of behavior.
Task 6. Write objectives for content areas for the psychomotor domain.
Task 7. Trainees select examples of objectives which illustrate a) convergent thinking, b) divergent thinking, c) evaluative thinking.
Task 8. Trainees state how the objectives they have written for preceding tasks are appropriate to: a) societal

needs, b) developmental needs of youth she will be teaching, c) classes of learning outcomes, d) structure and methods of inquiry of the discipline from which the objectives are drawn.

II. Adjusts for Individual

Task 9. State prerequisite behavior necessary for given objectives.
Task 10. Write descriptions of procedures for assessing the degree to which different types of learners are likely to possess the necessary prerequisites for a learning task.
Task 11. Write modified objectives for different types of learners and different classes of learner outcomes.

III. Selects Strategy

Task 12. Choose from among available media, and justify choices in terms of: a) relevance of content, and b) appropriateness of media's characteristics to the desired behavior.
Task 13. Select media appropriate to different learners' characteristics.
Task 14. List sources of media appropriate to content areas.
Task 15. Construct examples of types of media useful in differing content areas.
Task 16. Determine activities of learners and justify the appropriateness of these activities in terms of: a) the kind of learning involved, b) principles of learning, c) learner characteristics, d) significance to content, e) relevance to classes of learner outcomes, f) methods.
Task 17. Determine and describe teacher activity in terms of kind of learning involved and related principles of learning.

IV. Organizes Environment

Task 18. Write plans which place in appropriate sequence: a) anticipated pupil activity, b) teacher actions, c) media. Allot necessary time for aspects of the plans.

Task 19. In simulated classrooms, place equipment, media and pupils to facilitate different types of activity.

V. Interacts so Pupils Succeed

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VI. Evaluates Growth

Task 24. Write test items which adequately sample behavior described in previously written objectives.
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Task 26. Confer with pupils individually so as to elicit pupil responses indicating that pupils make a fair appraisal of their own performance.

VII. Defines Next Step

Task 27. Diagnose appropriate learning cycles in accord with pupil demonstration of knowledges, skills, and understandings required for progression to the next objective.
Task 28. Define next objectives in terms of content, learner characteristics, and classes of learner outcome.